Syncope in English:

schwa deletion vs. consonant clusters
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Syncope (medicine)

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"Syncope" redirects here. For the motion picture company, see Syncope Films.

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Syncope (/ˈsɪŋkoʊp/) is a transient loss of consciousness and postural tone, characterized by rapid onset, short duration, and spontaneous recovery due to global cerebral hypoperfusion (low blood flow to the brain) that most often results from hypotension (low blood pressure). This definition of syncope differs from others by including the cause of unconsciousness, i.e., transient global cerebral hypoperfusion. Without that addition, the definition of syncope would include disorders such as epileptic seizures, concussions, or cerebrovascular accidents, and syncope is distinguished from coma, which can include persistent states of unconsciousness. This confusion still occurs in some literature.

Many forms of syncope are preceded by a prodromal state that often includes dizziness and loss of vision ("blackout") (temporary), loss of hearing (temporary), loss of pain and feeling (temporary), nausea and abdominal discomfort, weakness, sweating, a feeling of heat, palpitations and other phenomena, which, if they do not progress to loss of consciousness and postural tone are often denoted "presyncope".[1]

There are three broad categories of syncope: cardiogenic, reflex (i.e., neurally mediated) and orthostatic hypotension, which underlie most forms of syncope. Cardiogenic forms are more likely to produce serious morbidity or mortality and require prompt or even immediate treatment. Although cardiogenic syncope is much more common in older patients, an effort to rule out arrhythmic, obstructive, ischemic, or cardiomyopathic causes of syncope and circulatory inadequacy is mandatory in each patient.

Variants of reflex syncope often have characteristic histories, including precipitants and time course. These become evident through skillful history-taking. Thus, the clinical history is the foremost tool used in the differential diagnosis of syncope. Physical examination...
Syncope (phonetics)

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For other uses, see Syncope.

This article should specify the language of its non-English content, using {{lang}}, with an appropriate ISO 639 code.

See why: (April 2013)

In phonology, *syncope* ( /ˈsɪŋkoʊp/; Greek: σύν- + κόπτειν 'to strike, cut off') is the loss of one or more sounds from the interior of a word, especially the loss of an unstressed vowel. It is found both in synchronic analysis of languages and diachronics.

**Contents**

- Found synchronically
- Found diachronically as a historical sound change
  - Loss of any sound
  - Loss of an unstressed vowel
- See also
- References

Found synchronically [edit]

Synchronic analysis is an analysis that views linguistic phenomena only at one point in time, usually the present. We find syncope happening within the functioning of modern
0. Intro
- syncope: the deletion of a zero-stressed vowel (schwa) between consonants + compression (resyllabification) (Brittany ~ Britney) = the number of syllables reduces by one (vs. syllabic consonant formation: button)
- more marked constructions are produced: coda consonant, consonant clusters (secondary clusters)
- traditional descriptions distinguish betw. pre-stress (police) and post-stress (cámara) syncope
Claims:
- the pre-stress/post-stress distinction is secondary phonologically
- relevant distinction: betw. phonotactically licit vs. illicit, that is, whether the resulting secondary cluster is part of the inventory of well-formed clusters (in English)
- licit syncope has the potential to fully take place (no traces of the original schwa) → merger with lexical structures (Britney ~ chutney) → lexicalization ⇒ intuitions (even of phonologists describing/analyzing syncope)
- the potential to lexicalize is determined by the licit/illicit distinction, which is in turn heavily influenced by both word position and stress position
1. Pronounce these words. Syncopate schwas wherever possible.

*below*, *camera*, *deliver*, *different*, *evening*, *every*, *family*, *police*, *potato*, *separate* (adj), *suffice*, *suppose*, *terrain*

2. Divide the words into post-stress/pre-stress types.

3. Compare:
   - the rhythmic effect
   - the sonority of the consonants straddling the syncope site
   - the speech tempo needed for syncope
1. Syncope in English: the facts (?)
- traditional descriptions (esp. Zwicky 1972a-b and Hooper 1978): post-stress vs. pre-stress:

<table>
<thead>
<tr>
<th>post-stress syncope</th>
<th>pre-stress syncope</th>
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<tbody>
<tr>
<td>word-medial</td>
<td>eliminates word-initial unfooted syllables</td>
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<tr>
<td>strict sonority constraint(^1)</td>
<td>phonotactically unconstrained (Zwicky), or: less constrained, on a relative scale (Hooper)</td>
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<tr>
<td>Hooper: not before obstruents, not even in sC clusters:</td>
<td>the cluster effect</td>
</tr>
<tr>
<td><strong>the cluster effect</strong></td>
<td>e.g., camera, family, different, separate (adj), etc.</td>
</tr>
<tr>
<td>e.g., terrain, police; also in suppose, suffice, potato, etc.</td>
<td>only attested in very fast and casual speech</td>
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</table>

\(^1\) sonority/strength hierarchy: vowels – glides – r – l – nasals – fricatives – plosives
Piliscsaba meets syncope
but: mere intuitions, criticized in corpus phonetics literature
Corpus data: the facts
- only partially supporting the traditional descriptions
- in certain registers, and not necessarily in very fast speech, following obstruents do in fact favour syncope and the reverse of the expected sonority effect is found
- besides their manner of articulation (sonority), the place of articulation and voicing of the consonants straddling the elision site also have an influence
- the difference between fast vs. slow speech syncope patterns is only quantitative
- complications: tempo, style, dialect, *intraspeaker* variation, word frequency, interference with syllabic consonant formation, contradictory data + differences in data collection or other aspects of methodology -> results of corpus studies sometimes difficult to interpret
major conclusions:

- no clear difference between pre-stress and post-stress syncope in terms of **speech tempo**: faster speech boosts both => difference caused by speech rate is only quantitative
- the **cluster effect** is ambivalent (traditional formal analyses insist on a strict strength/sonority restriction in post-tonic syncope but not word-initially, but **experimental evidence does not support this**); rather: a complicated, variable system determined by manner (sonority) primarily and place/voicing secondarily --> a weak tendency to observe **universal** syllable structure principles in both subtypes of syncope
2. Surface opacity and lexicalization
**lexicalization**: when the word is stored in the lexicon in the modified form: syncope is not a synchronic process but a diachronic change

Pronounce these words. What was the original, schwa-ful pronunciation? Does spelling indicate the lost schwa?

*every, evening, Britney, Barbra, enmity, comfortable, vegetable, different, temperature, Catholic, chocolate, business, literature, basically, pram, praps, police, suppose, support, tattie, ’cause/coz, definitely*
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Check the cluster effect in these examples.
2. Surface opacity and lexicalization
- Carlotti-Mortreux-Turcsán (2009): despite the complexity of the corpus data, it is clear that:

  the distinction between post-tonic neutralising and pre-tonic opaque syncope in particular and, licit vs. illicit syncope in general seems to be crucial for modelling native speakers’ behaviour and judgements

  (emphasis mine)

- **neutralization**: no difference betw. primary (lexical) and secondary (syncope-created) consonant clusters (recall *Britney* ~ *chutney*)
- **opacity**: (some of) the conditions of a pronunciation have become obscured by another one
opacity: (some of) the conditions of a pronunciation have become obscured by another one, e.g., \([p^h]\) in *support* but not in *sport* – syncope deletes the intervening vowel in *s’pport*: in the case of a \([sp^h]\) pronunciation, aspiration is not justified:

the phonological patterning of segments (aspiration in this case) imitates the pre-deletion situation (as if the /p/ was still syllable-initial): cues at the deletion site!
Question: Is this what happens?

- phonologically incomplete phenomenon in which the phonological patterning of segments imitates the pre-deletion situation? → **gradient**: preserves the syllabicity of the 'deleted' vowel, which may be signalled by phonetic cues at the deletion site

or

- phonological process? → **categorical**: phonologically complete, destroys syllabicity of deleted vowel, syllable-governed phonology refers exclusively to the output syllabification
Answers:

- very often (usually?): (phonetic) traces $\rightarrow$ opaque surface structures: not transparent, that is, (some of) the conditions of a pronunciation have become obscured by another one (cf. French: Fougeron and Steriade 1997):
Surface opacity

(1) Aspiration after [s] morpheme-internally, as in
\(s'[p^h]osed\) ‘supposed’, and before a consonant, as in
\([k^h]nnections\) ‘connections’.
(2) Tapping before a non-syllabic consonant, as in
\(li[r]ature\) ‘literature’, \(ca[r]log\) ‘catalog’, \(ca[r]ring\)
‘catering’.
(3) Voiced fricatives before fortis obstruents morpheme-
internally, as in \(po[z]'tive\) ‘positive’.
(4) Morpheme-internal geminates, as in \(pro[bb]ly\)
‘probably’, \(lib[rr]y\) ‘library’.

\(^2\) Based on Carlotti-Mortreux-Turcsán (2009)
- neither type of syncope is *usually* phonologically complete

- but: fully phonologized syncope: no traces, merger with lexical clusters (*cemetery* = *symmetry*) →→ lexicalization: *every, evening, Britney, Barbra, enmity, comfortable, vegetable, different, temperature, Catholic, chocolate, business*, derivatives in *-ically*, etc ... – both licit and 'illicit' (see below)

- lexicalization of pre-stress syncope? *pram, praps, police, suppose, support* – a much smaller set + word-medially?
3. Consonant clusters and lexicalization
typology of two-member consonant clusters in English, based on their possible word positions:

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/st/?
- pre-stress syncope is usually word-initial -> produces initial clusters
- post-stress syncope produces medial clusters => less constrained phonotactically:
- word-medially, it is “easier” for a consonant sequence to be licit: bogus or initial (cf. camera and separate)
- word-initial position: only rising-sonority obstruent-approximant combinations and s-consonant sequences

- otherwise: illicit syncope produces consonant sequences unattested in English lexically → cannot, by definition, lexicalize

+ drastic repair strategies:

  potato $\rightarrow X \rightarrow ptato \quad *#pt-$  but: tata/tater/tattie

also: 'cause, 'member: loss of initial consonant, too
- the stress effect: séparâte (v) *sép’râte – usual explanation: stress clash avoidance
- insufficient, cf. hullabaloo *hullab’loo, methodological *method’logical, nationalize *nation’lize
- general tendency of stressed vowels to refuse to support reduction/weakening in the left-hand environment =>
- pre-stress syncope: restricted word-initially: stress effect (stressed vowels don’t syncopate) + cluster effect (strict initial phonotactics),
- pre-stress syncope: restricted medially: stress effect + frequently: stress clash avoidance
- (+ the syncopated pronunciation has to be frequent enough to be able to lexicalize)
- the differences that we find between the pre-stress and post-stress subtypes are not caused by inherent properties of the two types themselves, but by the interplay of stress pattern preferences and the cluster phonotactics of English, which is in turn determined by word position -> the causal relation is only indirect
- the crucial distinction is not between pre-tonic and post-tonic, but between licit and illicit

- recall: illicit syncope produces consonant sequences unattested in English lexically → cannot, by definition, lexicalize

- native speaker knowledge of what strings count as potentially fully phonologizable and subsequently lexicalizable explains the grammaticality judgements built into the traditional descriptions of the process
4. Conclusions and theoretical considerations
- key distinction: phonotactically licit vs. illicit
- both traditionally distinguished types of syncope are usually opaque, but when the cluster effect and the stress factor permit, full phonologization may take place, paving the way to lexicalization
- word-internally, it is easier to be licit
- word-initially and before stressed vowels: stricter phonotactics + stress → a much smaller set of lexicalized examples
- licit syncope can potentially be phonologically complete → merger with lexical structures (cemetery = symmetry, parade = prayed, support = sport) → possibility of lexicalization ⇒ intuitions in traditional descriptions

- major consequence for the phonological analysis of syncope in English: neither the cluster effect nor the stress effect need to be encoded in the structural description of syncope itself (independently motivated, more general principles: consonant cluster phonotactics + general reluctance of stressed vowels to cause deletion/weakening on their left-hand side)